## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Art Unit: 2631

Examiner: Mr. Don N. Vo

In re PATENT APPLICATION of

Applicants: Nobuo ASANO et al.

Appln. No.: To Be Assigned (Continuation of

Application No. 09/337,403, Filed June 21,

1999 for Reissue of Patent 5,667,929)

June 26, 2001 Filed

For

Sir:

AUTOMOBILE ON-BOARD AND/OR

PORTABLE TELEPHONE SYSTEM

Atty. Dkt.: 31238-172689

**PRELIMINARY AMENDMENT** 

June 25, 2001

Customer No.

26694 PATENT TRADEMARK OFFICE

Assistant Commissioner for Patents Washington, D.C. 20231

Prior to the first examination of the above-identified application, kindly amend the

application as follows:

## IN THE SPECIFICATION:

On page 2 of the application, between "BACKGROUND OF THE INVENTION" and "1. Field of the Invention", insert:

Cross-reference to related applications. This is a continuation of application number 09/337,401, which was filed on June 21, 1999, to seek reissue of U.S. Patent 5,677,292. That patent issued on October 14, 1997 on application number 08/272,156, filed on July 8, 1994.

## IN THE CLAIMS:

Kindly cancel claims 1-7, and add in lieu thereof the following new claims 8-11:

8. A CDMA (code division multiple access) communication system, comprising:

first transmitter means for multiplying a plurality of orthogonal codes by a first pseudorandom noise code to obtain a plurality of first spreading codes and for employing the first spreading codes to spread information;

second transmitter means for multiplying the orthogonal codes by a second pseudorandom noise code to obtain a plurality of second spreading codes and for employing the second spreading codes to spread information, the second pseudo-random noise code being substantially the same as the first pseudo-random noise code except for a phase difference;

first receiver means which includes means for recovering the information by despreading the information with one of the first spreading codes; and

second receiver means which includes means for recovering information by despreading the information with one of the second spreading codes.

- 9. A CDMA (code division multiple access) communication method, comprising the steps of:
- (a) multiplying a plurality of orthogonal codes by a first pseudo-random noise code to obtain a plurality of first spreading codes;
- (b) employing the first spreading codes to spread information prior to transmission thereof;

- (c) multiplying the orthogonal codes by a second pseudo-random noise code to obtain a plurality of second spreading codes;
- (d) employing the second spreading codes to spread information prior to transmission thereof;
- (e) recovering received information by despreading it with one of the first spreading codes; and
- (f) recovering received information by despreading it with one of the second spreading codes.
- 10. A method for use in a CDMA (code division multiple access) communication system for transmitting information, said method comprising the steps of:
- (a) multiplying a code selected from a set of orthogonal codes by another code to obtain a spreading code; and
- (b) using, as the code in step (a), a predetermined pseudo-random noise code or the pseudo-random noise code shifted in phase.
- 11. A CDMA (code division multiple access) transmitter for transmitting information, said transmitter comprising:
  - (a) spreading means for spreading the information; and
- (b) multiplying means for multiplying a code selected from a set of orthogonal codes by a pseudo-random noise code or the pseudo-random noise code shifted in phase.

## **REMARKS**

The present Preliminary Amendment is being filed in order to insert a cross-reference to the parent application and to replace the claims of the parent application with new claims. The parent application, number 09/337,403, was filed on June 21, 1999, in order to seek reissue of U.S. Patent 5,677,929.

A copy of a paper entitled "Assent Of Assignee To Reissue" that was filed in the parent application is attached to this Preliminary Amendment. Additionally, attached is a copy of a paper entitled "Offer To Surrender Original Patent" that was also filed in the parent application. The original letters patent document for U.S. Patent 5,677,929 was surrendered on September 21, 2000. Also attached is a copy of a paper entitled "Request For Abstract Of Title" that was filed in the parent application.

Papers entitled "Information Disclosure Statement" and "Claim For Priority" are being submitted concurrently.

Examination of the present reissue application on its merits is respectfully requested.

Respectfully submitted,

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**VENABLE** 

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